



# Missouri Pass Landfill

Solid Waste Management Program fact sheet

1/2011

## History

Missouri Pass Landfill was permitted under permit number 118914 and is officially known as the St. Louis County Sanitary Landfill. It has a 71 acre footprint located on 85 acres. The facility received official closure in May 1996 and has a 30 year post closure period. The facility is owned by Republic Services.

## Methane Migration and Well Number and Location

Gas migration at Missouri Pass Landfill has been observed since July 17, 1981. The landfill installed a comprehensive gas extraction system to control the landfill gas with 51 nested monitoring probes at 33 locations around the facility. The probes are installed at depths ranging from 6- to 100-feet below ground surface. Twenty-seven of the probes are nested at nine different locations at three separate depths to monitor different geologic layers.

Some of the probes are located outside the property boundary. These probes are GMP8-A,B,C, GMP9-A,B,C, GMP-12, GMP13, C-25A and C1A.

Diagrams showing the well locations and probes in relation to the landfill are attached at the end of this fact sheet. A table showing the "hot" wells and corresponding readings is also attached.

The facility is monitoring the wells weekly. During January 2010, six wells were above regulatory levels. The wells are GMP-24, GMP-25, GMP-15, GMP-2A, GMP-16 and GMP-17.

Readings in February 2010 indicated exceedences in one well location, which was well GMP-15.

## Adjacent Land Owner Notification

In September 2008, the facility notified 30 adjacent land owners about the methane exceedences and conducted follow-up inspections with each property owner.

In a letter dated Feb. 4, 2010, Republic Services renotified 30 surrounding property owners of the potential for methane migration and 129 new property owners. They are currently conducting follow up inspections. Approximately 70 of these notifications went to private residences.

## Summary of Recent Activity at Site

The department has been working with this facility over the last couple years to identify and control methane within their property boundaries as required by state law. To identify areas impacted by gas migration, the department has required increased gas monitoring frequency, and the installation of additional gas monitoring probes.

In April 2009, the department required the facility to evaluate the condition and effectiveness of the currently installed gas monitoring and gas extraction systems because previous attempts by the facility to control gas migration had failed.

An August 2009 report with results of that study indicate elevated leachate within the landfill is adversely impacting the gas extraction systems ability to remove gas from the landfill and some gas monitoring probes are inundated with water limiting their usefulness as monitoring devices.

The report also proposed modifications to the current gas extraction and gas monitoring system, which was subsequently conditionally approved by the department in November 2009. As part of that approval, the department requested a detailed Landfill Gas Corrective Action Plan be developed and submitted to the department for approval. The department also recommended the facility re-notify adjacent landowners of the potential for methane migration to be occurring.

To control gas along the south side of the property, a methane cutoff trench was proposed in a Nov, 13, 2009 report. The trench was subsequently approved Nov. 25, 2009. After an approved plan has been implemented, the department will be looking for compliance or significant reductions in methane concentrations in affected wells to demonstrate methane migration has been brought under control.

More gas monitoring probes have been proposed and approved along the south and north west portions of the facility. Gas extraction well heads have been installed to improve gas collection efficiency, as well as leachate extraction pumps in some wells to improve gas collection.

The department is currently waiting for an expanded plan to be submitted that will propose remediation methods for all out of compliance probes.

## **For More Information**

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